IFW

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,139	07/31/2003	Eric Michael Breitung	121277	9469

7590 06/27/2005

EXAMINER
ZERVIGON, RUDY

ART UNIT	PAPER NUMBER
1763	

General Electric Company
CRD Patent Docket Rm 4A59
P.O. Box 8, Bldg. K-1
Schenectady, NY 12301

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED
OIPE/IAP
JUL 13 2005

Office Action Summary	Application No.	Applicant(s)	
	10/630,139	BREITUNG ET AL.	
	Examiner	Art Unit	
	Rudy Zervigon	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) *19-31* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/31/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Election/Restrictions

1. Applicant's argument of May 31, 2005 concerning the Examiner's grouping of claims 1-18 is agreed. In response, a new electrion/restriction grouping is presented below.

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-18, drawn to a delivery device, classified in class 118, subclass 723E.

II. Claims 19-31, drawn to a method for gas deposition, classified in class 427, subclass 535.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and II are related as process and apparatus (Figure 1; column 6; lines 35-48) for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process as claimed can be practiced by another and materially different apparatus, for example, a microwave plasma as produced in 118/723MW, 156/345.41, or inductive plasmas as produced in 118/723I, 156/345.48.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Ann M. Agosti on June 23, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-31 are

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. Applicant's election with traverse of in the reply filed on is acknowledged. The traversal is on the ground that "the search for the entire application can be made without serious burden", and the the method claims are of a "narrower scope". This is not found persuasive because, firstly, the Examiner has already demonstrated that additional burden is required by the Examiner in expanding his search to method classes and subclasses as detailed above. Further, the Examiner cites that the test for requiring election in Applications with plural inventions is that, as is stated above, the process as claimed can be practiced by another and materially different apparatus, for example, a microwave plasma as produced in 118/723MW, 156/345.41, or inductive plasmas as produced in 118/723I, 156/345.48.

The requirement is still deemed proper and is therefore made FINAL.

Double Patenting

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/449,975. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of copending Application No. 10/449,975 thermally/electrically isolate a light tranmission portion but does not similarly thermally/electrically isolate a process gas tranmission portion.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the same isolation means as claimed by copending Application No. 10/449,975 to gas transmission.

Motivation to apply the same isolation means as claimed by copending Application No. 10/449,975 to gas transmission is to thermally and electrically isolate the process gasses for preventing premature reaction(s).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Countrywood; Joseph et al. (US 6,110,540 A). Countrywood teaches a delivery device (Figure 3B; column 6; line 34 - column 6, line 23) for a thin film deposition or etching apparatus (Figure 1; column 6; lines 35-48), comprising: a heated gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) for delivering a gas (120; Figure 3B) to a powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23) of the apparatus (Figure 1; column 6; lines 35-48), the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) maintained under a vacuum (16; Figure 1; column 4; lines 34-49); and a coupling device (110; Figure 1; column 7; lines 15-23) located between the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23) and the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the coupling device (110; Figure 1; column 7; lines 15-23) comprising insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23), as claimed by claim 1

Countrywood further teaches:

i. The device of claim 1, wherein the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) is directly connected to the coupling device (110; Figure 1; column 7; lines 15-23), as claimed by claim 2

ii. The device of claim 2, wherein the coupling device (110; Figure 1; column 7; lines 15-23) is directly connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), as claimed by claim 3

iii. The device of claim 1, wherein the thin film deposition or etching apparatus (Figure 1; column 6; lines 35-48) comprises a PECVD apparatus (Figure 1; column 6; lines 35-48), as claimed by claim 4

iv. The device of claim 1, wherein the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is both thermally and electrically insulating, as claimed by claim 5

v. The device of claim 1, wherein the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) comprises a plastic or a ceramic material, as claimed by claim 6

vi. The device of claim 3, wherein the coupling device (110; Figure 1; column 7; lines 15-23) further comprises a flange (outer portion of 110, not labelled; Figure 3B) for maintaining the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) under a vacuum (16; Figure 1; column 4; lines 34-49), claimed by claim 7

vii. The device of claim 7, wherein the flange (outer portion of 110, not labelled; Figure 3B) is connected to the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), and the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) and flange (outer portion of 110, not labelled; Figure 3B) are connected to each other, as claimed by claim 8

viii. A delivery device (Figure 3B; column 6; line 34 - column 6, line 23) for delivering a gas (120; Figure 3B) to a thin film deposition or etching apparatus (Figure 1; column 6; lines 35-48), the system comprising: a heated gas (120; Figure 3B) inlet line (conduit for gas

from 120; Figure 3B; column 6; line 34 - column 6, line 23) maintained under a vacuum (16; Figure 1; column 4; lines 34-49); and a coupling device (110; Figure 1; column 7; lines 15-23) located between a powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23) of the apparatus (Figure 1; column 6; lines 35-48) and the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the coupling device (110; Figure 1; column 7; lines 15-23) comprising thermal and electrical insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23), as claimed by claim 9

ix. The device of claim 9, wherein the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) is directly connected to the coupling device (110; Figure 1; column 7; lines 15-23), as claimed by claim 10

x. The device of claim 10, wherein the coupling device (110; Figure 1; column 7; lines 15-23) is directly connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), as claimed by claim 11

xi. The device of claim 9, wherein the electrical insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) comprises a plastic or a ceramic material, as claimed by claim 12

xii. The device of claim 11, wherein the coupling device (110; Figure 1; column 7; lines 15-23) further comprises a flange (outer portion of 110, not labelled; Figure 3B) for maintaining the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) under a vacuum (16; Figure 1; column 4; lines 34-49), as claimed by claim 13

xiii. The device of claim 13, wherein the flange (outer portion of 110, not labelled; Figure 3B) is connected to the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), and the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) and flange (outer portion of 110, not labelled; Figure 3B) are connected to each other, as claimed by claim 14

xiv. A PECVD apparatus (Figure 1; column 6; lines 35-48) containing a delivery system, the system comprising: a heated gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) maintained under a vacuum (16; Figure 1; column 4; lines 34-49); and a coupling device (110; Figure 1; column 7; lines 15-23) located between a powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23) of the PECVD apparatus (Figure 1; column 6; lines 35-48) and the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the coupling device (110; Figure 1; column 7; lines 15-23) comprising insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) and flange (outer portion of 110, not labelled; Figure 3B) device for maintaining the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) under a vacuum (16; Figure 1; column 4; lines 34-49), as claimed by claim 15

xv. The device of claim 15, wherein the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23) is directly connected to the coupling device (110; Figure 1; column 7; lines 15-23) and the coupling device (110;

Figure 1; column 7; lines 15-23) is directly connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), as claimed by claim 16

xvi. The device of claim 15, wherein the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is both thermally and electrically insulating, as claimed by claim 17

xvii. The device of claim 16, wherein the flange (outer portion of 110, not labelled; Figure 3B) is connected to the gas (120; Figure 3B) inlet line (conduit for gas from 120; Figure 3B; column 6; line 34 - column 6, line 23), the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) is connected to the powered electrode (18; Figure 1,3B; column 6; line 34 - column 6, line 23), and the insulation portion (" ceramic elements 110"; Figure 1; column 7; lines 15-23) and flange (outer portion of 110, not labelled; Figure 3B) are connected to each other, as claimed by claim 18

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 6155200 A

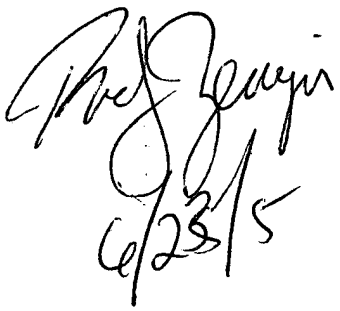
US 5266153 A

US 4719873 A

US 4709656 A

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Rudy Zervigon whose telephone number is (571) 272.1442. The examiner can normally be reached on a Monday through Thursday schedule from

8am through 7pm. The official fax phone number for the 1763 art unit is (703) 872-9306. Any Inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Chemical and Materials Engineering art unit receptionist at (571) 272-1700. If the examiner can not be reached please contact the examiner's supervisor, Parviz Hassanzadeh, at (571) 272-1435.



FORM PTO-1449 (REV. 7-80)

US. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.	SERIAL NO.
121277	10/630,139
Applicant: Eric M. Breitung et al.	
Filing Date	Group: 1763

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
LIST OF ITEMS

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	6,194,628	02/27/01	Pang et al.	588	900	
	AB	6,182,603	02/06/01	Shang et al.	705	40	
	AC	5,959,409	09/28/99	Dornfest et al.	315	111.21	
	AD						
	AE						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
	AF							
	AG							
	AH							
	AI							
	AJ							

OTHER INFORMATION (Including Author, Title, Date, Pertinent Pages, etc.)

	AK	
	AL	
	AM	
	AN	
	AO	
	AP	

EXAMINER	DATE CONSIDERED
	6/23/05

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

Notice of References Cited	Application/Control No. 10/630,139	Applicant(s)/Patent Under Reexamination BREITUNG ET AL.	
	Examiner Rudy Zervigon	Art Unit 1763	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,155,200 A	12-2000	Horiike et al.	118/723E
	B	US-6,110,540 A	08-2000	Countrywood et al.	427/569
	C	US-5,266,153 A	11-1993	Thomas, Michael E.	134/1.1
	D	US-4,719,873 A	01-1988	Fujiyama, Yasutomo	118/723E
	E	US-4,709,656 A	12-1987	Fujiyama, Yasutomo	118/723E
	F	US-2004/0237888 A1	12-2004	Codella et al.	118/712
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

NEW CENTRAL FAX NUMBER

Effective July 15, 2005

On July 15, 2005, the Central FAX Number will change to **571-273-8300**. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005. After September 15, 2005, the old number will no longer be in service and **571-273-8300** will be the only facsimile number recognized for "centralized delivery".

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

Organization IC1700 Bldg./Room REMSEN

U. S. DEPARTMENT OF COMMERCE
COMMISSIONER FOR PATENTS
P.O. BOX 1450
ALEXANDRIA, VA 22313-1450
IF UNDELIVERABLE RETURN IN TEN DAYS

OFFICIAL BUSINESS

UNITED STATES POSTAGE U.S. OFFIC
PENALT
PRIVATE U
PITNEY BO
02 1A $ 01.
0004205065 JUN 27
MAILED FROM ZIP CODE

AN EQUAL OPPORTUNITY EMPLOYER

GE --C08* 123012010 1604 14 06/30/05
FORWARD TIME EXP RTN TO SEND
GE CORP RESEARCH & DEVELOPMENT
1 RESEARCH CIR
SCHENECTADY NY 12309-1027

RETURN TO SENDER

RECEIVED
JUL 05 2005
USPTO MAIL CENTER